PANASYUK, G. (Tashkent).

Acquainting students with fire prevention measures. Politekh. obuch. no.6:91-92 Je '58. (MIRA 11:6)
(Fire prevention—Study and teaching)

PANASYUK, G. AFANAS'YEV, N.

"Fire-safety measures in agriculture" by B.V. Kagan. Reviewed by G. Panasiuk, N.Afanas'ev. Pozh. delo 5 no.10:30 O '59. (MIRA 13:2)

(Agriculture--Safety measures)
(Fire prevention--Study and teaching)
(Kagan, B.V.)

PANASYUK, G.

An urgent problem. Politekh. obuch. no.8:89 Ag '59.
(MIRA 12:10)

1.Upravleniye pozharnoy okhrany Ministerstva vnutrennikh del UzSSR, Tashkent.
(Safety education)

CHMUTOV, K.V.; DANCHEVSKAYA, M.; PANASYUK, G.

Along the labyrinths of pores and capillaries. Tekh. mol. 31 no.3:5-6 '63. (MIRA 16:6)

1. Chlen-korrespondent AN SSSR (for Chmutov).
(Chromatographic analysis)

PANASYUK. G. P.

AUTHORS: Poltorak, O.M., Panasyuk, G.P. 76-12-6/27

TITLE: Mass Spectrometric Determination of the Heat of Sublimation of Real Crystals (Mass-spektrometricheskoye opredeleniye teplot sublimatsii real'nykh kristallov). I. Zinc (I. Tsink).

PERIODICAL: Zhurnal Fizicheskoy Khimii, 1957, Vol. 31, Nr 12, pp. 2644-2648 (USSR)

ABSTRACT: Reference is made to the paper [Ref.1] of one of the authors (Poltorak) of the present work. There, a value of orientation for the decrease of the heat of sublimation with real crystals $\Delta\lambda_{real}$ = = 10 000 - 15 000 cal/mol was obtained for the most active samples. This evaluation, however, was indirect there. Here it is tried to re-examine this assumption by means of a test. This is carried out by determining the heat of sublimation of the metals which was obtained under conditions analogous to that of the synthesis of metallic catalysts. The mass-spectroscopic method for the determination of vapor pressure was applied for the determination of the heat of sublimation. This method allows, in contrast with other methods, to investigate the properties of the crystalline surface layer at extraction of a minimum amount of material. This peculiarity is of decisive importance with the investigation of faceted samples which are not in equi-

Card 1/4

Mass Spectrometric Determination of the Heat of Sublimation of Real Crystals. I. Zinc. 76-12-6/27

librium. The present work was performed in connection with the investigation of the properties of metallic catalysts. The relatively easily volatile metal zinc, the heat of sublimation of which can be examined at sufficiently low temperatures and, moreover, according to various methods, was selected as object. The data for the catalytic properties of zinc, however, cannot be compared with the test data on physical properties of the crystals, since the catalytic activity in the case of zinc is usually correlated with the properties of the zinc oxide film which always covers the surface of the crystal. It is shown that the heat of sublimation with coarse-crystalline zinc which was obtained by distillation in vacuum, amounts to 30 000 cal/g-atom. This number agrees with the data from reference 2. This value was assumed here as λ_∞ , whereas the value $\Delta\lambda_{real}$ was determined, starting from $\Delta\lambda_{real} = \lambda_\infty - \lambda$ test. It is shown that with the most active zinc dust crystals, the decrease in the heat of sublimation attains the value of 10 000 - 15 000 cal/g-atom, in which case the obtaining of crystals with $\Delta\lambda$ = 10 000 makes no special difficulties. It is shown that the processes taking place at an increase of temperature lead to a reduction of $\Delta\lambda$, since the conversion takes place in first line in that part of the system

Card 2/4

Mass Spectrometric Determination of the Heat of Sublimation of Real Crystals. I. Zinc. 76-12-6/27

containing the least stable structures. It is shown that the annealing of the samples below 250° C does not change the heat of sublimation, whereas already at 280° C the recrystallization takes place quickly and the λ values approximate to the λ_∞. The cause for this phenomenon might be in the recrystallization of the zinc oxide covering the zinc crystals at approximately 250° C (according to the data of electronographic investigations, [Ref. 4]). With deeper temperatures, the ZnO-layer is compact and shows the lattice structure of metallic zinc. At 250° C the zinc oxide obtains its specifical characteristic structure. It is assumed that the stabilizing action of the compact and thin layer of zinc oxide reduces after its recrystallization.

The author was advised by L.N. Gorokhov with respect to the method applied with mass spectroscopic tests. There are 4 figures, 2 tables, and 4 references, 2 of which are Slavic.

Card 3/4

Mass Spectrometric Determination of the Heat of Sublimation of Real Crystals. I. Zinc.

76-12-6/27

ASSOCIATION: Moscow State University imeni M.V.Lomonosov (Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova).

SUBMITTED: July 11, 1956

AVAILABLE: Library of Congress

Card 4/4

AUTHORS: Poltorak, O. M., Panasyuk, G. P. 76-32-2-36/38

TITLE: On the Sintering of Catalysts
(K voprosu o spekanii katalizatorov)

PERIODICAL: Zhurnal Fizicheskoy Khimii, 1958, Vol. 32, Nr 2, pp. 473-477 (USSR).

ABSTRACT: The results given here were obtained in 1955. The properties of sikver catalysts were investigated which had been obtained by a thermal decomposition of $(COOAg)_2$. The decomposition lasted for 5 hours, the temperature gradually rising from 150 to 200°C. The earthy argentite samples obtained were sintered at from 350 to 700°C for 3 hours in a furnace previously heated to the demanded temperature at a residual gas pressure (air) of , torr. After sintering, the catalysts were crushed and sieved in an agate mortar. As control process the decomposition of hydrogen peroxide (at 20 ± 0,05°C) was used. The "sintering curve" is given. From it can be seen that the sintering activity decreases almost linearly with the rise of temperature but a relative activity maximum can be found within the range of 570°C. The data

Card 1/2

On the Sintering of Catalysts

76-32-2-36/38

obtained clearly show just as well as those of Maxted and Lyon (reference 5) another picture than that obtained in references 1 - 3. It is assumed that this difference is dependent upon the characteristic features of experimental methods. It is pointed out that the samples obtained at high temperatures do not reproduce the process of samples sintered at low temperatures. It is demanded to standardize the initial earthy metallite by means of previous crystallization at an arbitrarily fixed temperature. There are 1 figure, and 6 references, 4 of which are Soviet.

ASSOCIATION: Moscow State University imeni M. V. Lomonosov
(Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova)

SUBMITTED: June 25, 1957.

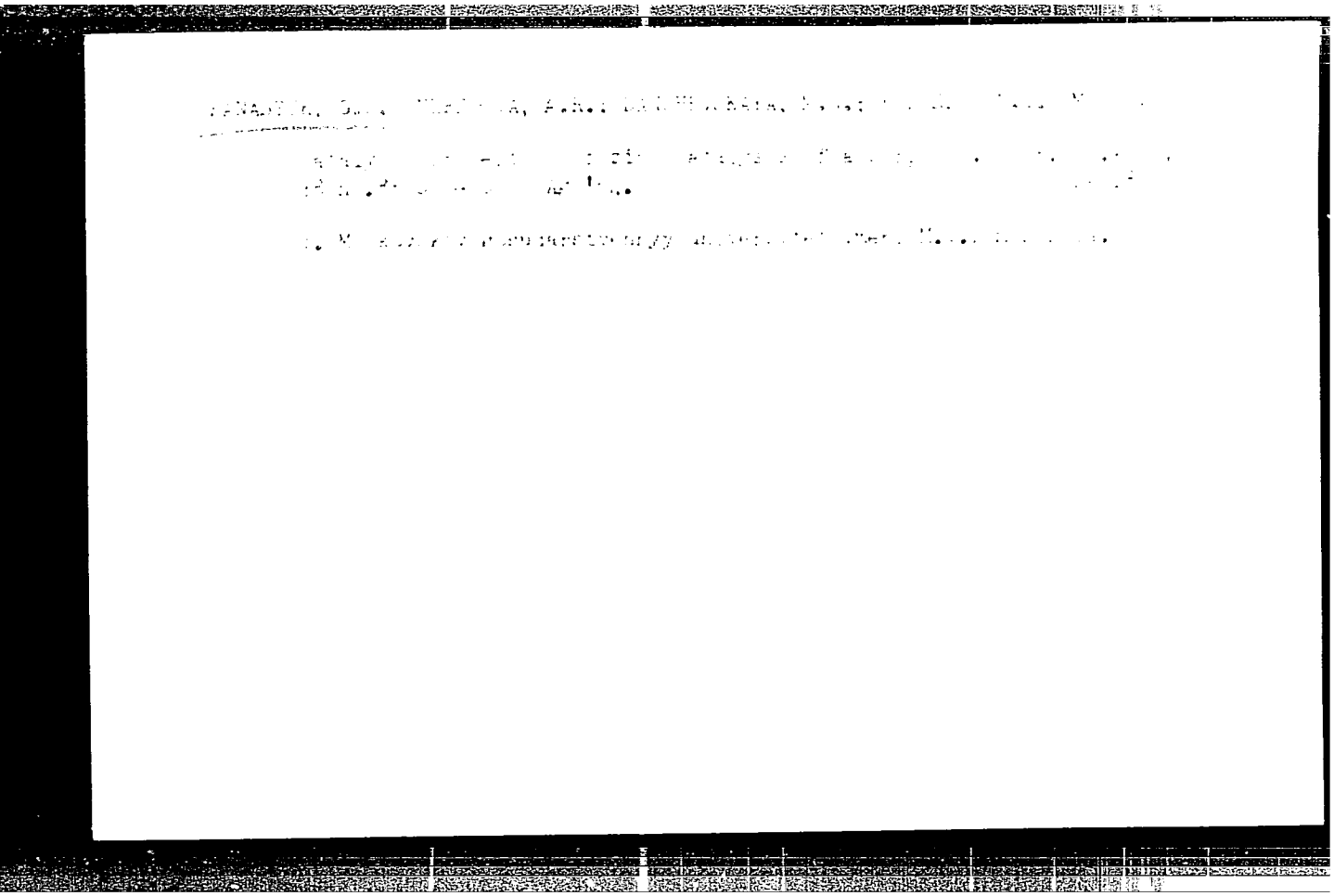
1. Silver catalysts--Sintering 2. Sintered catalysts--Effectiveness

Card 2/2

DANCHEVSKAYA, M.N.; PANASYUK, G.P.; KOBOZEV, N.I.

Mass-spectrometric method of studying the mechanism of methanol dehydrogenation in zinc vapors. Zhur.fiz.khim. 35 no.9:2125-2129 '61. (MIRA 14:10)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova.
(Methanol) (Dehydrogenation)



E-4

Category : USSR/Solid State Physics - Systems

Abs Jour : Ref Zhur - Fizika, No 1, 1957, No 1155

Author : Kornilov, I.I., Panasyuk, I.f
Inst : Institute of Metallurgy, USSR Academy of Sciences
Title : Diagrams of Composition -- Property of the Ion-Nickel System

Orig Pub : Izv. Sektora fiz khim analiza IONKH AN SSSR, 1956, 27, 164-170

Abstract : The diagram of state for Fe -- Ni revised on the basis of investigation results and on the basis of literature data. This diagram must include the region of formation of the Ni_3Fe compound and its solid solutions. Ni_3Fe is characterized by a single minimum on the composition vs hardness, strength, relative elongation, and reduction of transverse cross section diagrams upon rupture, and also by a singular point on the composition-heat resistance isotherm at 450°. This singualr point vanishes on the isotherm at 800°. The boundary of the γ -solid solution in the Fe -- Ni system appears at room temperature (7 -- 8% Ni) only in the form of a break on the diagram showing the composition vs. reduction in transverse area upon rupture. The boundary of the two-phase $\gamma + \alpha$ region and of the α solid solution corresponds to 28.6% of Ni.

Card : 1/1

AUTHOR KISHKIN, S.T., PANASYUK, I.O.,

TITLE On the Brittleness of Chromium. (O khrupkosti khroma - Russian) 20-6-21/59

PERIODICAL Doklady Akademii Nauk SSSR, 1957, Vol 113, Nr 6, pp 1263-1264 (U.S.S.R.)

ABSTRACT It is possible to understand the viscosity of chromium if one takes into consideration the scheme of the viscous and of the brittle fracture (as proposed by A.F. Ioffe) as well as the experimental data on chromium and its alloys. According to these concepts, the resistance to rupture must remain relatively constant in a rather large temperature interval and decrease only at sufficiently high temperatures. The experimental results obtained by the authors of the paper under review suggest that with increasing temperature the resistance to rupture of the polycrystalline commercial chromium increases but does not remain constant. Up to a certain temperature the elongation equals zero, but then the elongation increases and the brittle fracture goes over into a viscous fracture. But if the threshold value of the cold-shortness of chromium depends on the melting temperature, then the transition from the viscous to the brittle fracture should actually take place below the normal temperature. Also in the steels which are hardened on martensite the resistance to rupture increases if the annealing temperature is raised. It is probable that all elements which dissolve in the one or the other metal in accordance with the principle of penetration (similarly to carbon in iron) are in a position to strongly deform the crystal

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lattice of the metal in the solid state. As seen from this point of view, the low resistance to rupture of chromium at normal room temperature is connected with local distortions of the crystal lattice. These distortions are caused by elements which penetrate into the chromium and which enter a solid solution with chromium (inter alia, N, O, H, C, B), among these elements, N deserves particular attention. The gas admixtures have a considerable influence on the threshold value of the cold-shortness of chromium. On basis of this fact, the following can be explained: Commercial chromium is not a pure metal but rather an alloy, with a crystal lattice, which is deformed in single parts of the grains. The elements which form solid penetration-solutions have a different influence on the plasticity of chromium. The paper under review discusses some details, particularly in connection of the penetration by nitrogen. The heterogeneity of the solid solution and the difference in the phases of commercial chromium make it brittle. Nitrogen is one of the most harmful admixtures.
(1 reproduction).

ASSOCIATION All-Soviet Scientific Research Institute for Aviation Materials
PRESENTED BY REBINDER P.A., Member of the Academy,
SUBMITTED 24.3.1956
AVAILABLE Library of Congress
Card 2/2

SOV/124-58-8-9391

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 8, p 142 (USSR)

AUTHORS: Kishkin, S. T., Panasyuk, I. O.

TITLE: Concerning the Brittleness of Chromium (O khrupkosti khroma)

PERIODICAL: V sb.: Issled. po zharoprochn. splavam. Vol 2, Moscow, AN SSSR, 1957, pp 135-140

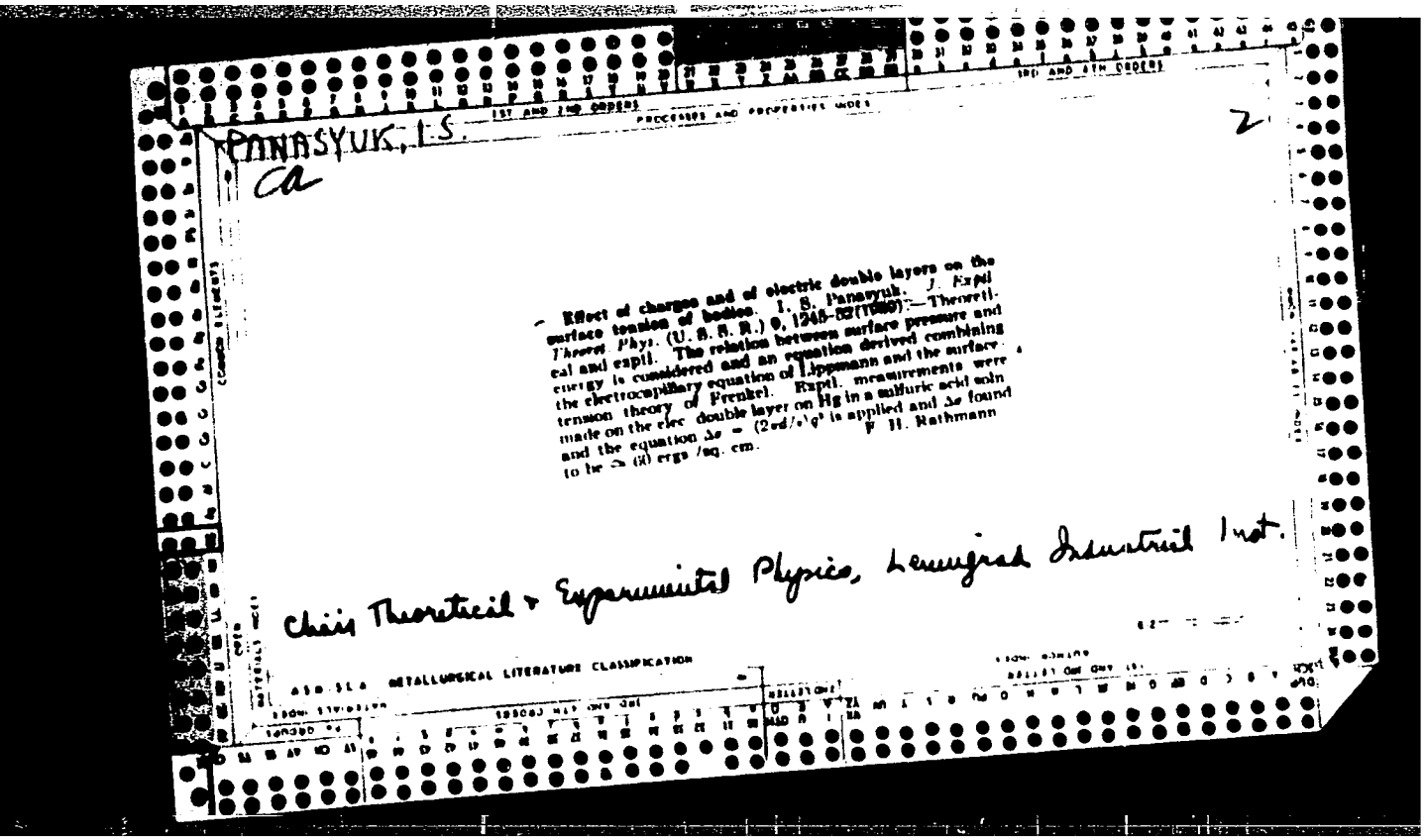
ABSTRACT: See also Dokl. AN SSSR, 1957, Vol 113, Nr 6, pp 1263-1264.

Card 1/1

PANASYUK, I.O., kand. tekhn. nauk; STROYEV, A.S., kand. tekhn. nauk, retsenzent; SHCHIL'TSEV, A.N., red.; ARTAMONOVA, V.S., tekhn. red.

[Chromium and its alloys; review of foreign and some Russian publications issued during 1950-1960]Khrom i ego splavy; obzor zarubezhnoi i nekotoroi otechestvennoi literatury za 1950-1960 gg.[n.p.] 1961. 39 p. (MIRA 15:12)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut aviatsionnykh materialov.
(Bibliography--Chromium)



PANASYUK, I. S.

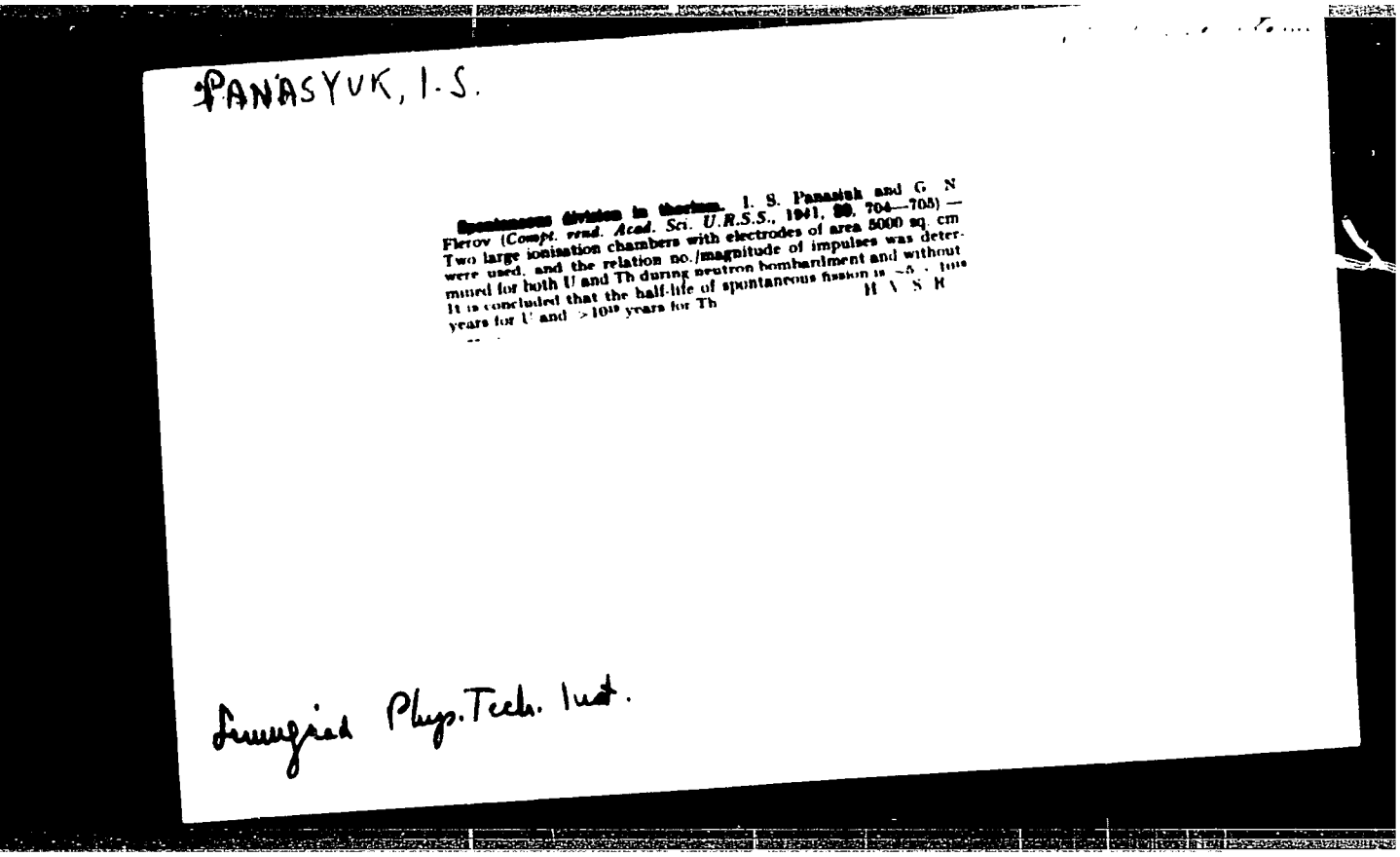
Ca

Effect of charges and of electric double layers on the surface tension of bodies. I. S. Panasyuk. *J. Exptl Theoret. Phys.* (U. S. S. R.) 9, 1248-52(1939).—Theoretical and exptl. The relation between surface pressure and energy is considered and an equation derived combining the electrocapillary equation of Lippmann and the surface tension theory of Frenkel. Exptl. measurements were made on the elec. double layer on Hg in a sulfuric acid soln. and the equation $\Delta\sigma = (2\pi d/\epsilon)q^2$ is applied and $\Delta\sigma$ found to be $\simeq$ (ii) ergs /sq. cm.

W. H. Rathmann

Chair Theoretical + Experimental Physics, Leningrad Industrial Inst.

A 50-51 A METALLURGICAL LITERATURE CLASSIFICATION



PANASYUK, I. S.

Spontaneous division in thorium. I. S. Panasiuk and G. N. Flerov (*Compt. rend. Acad. Sci. U.R.S.S.*, 1941, **30**, 704—705). — Two large ionisation chambers with electrodes of area 5000 sq. cm were used, and the relation no./magnitude of impulses was determined for both U and Th during neutron bombardment and without. It is concluded that the half-life of spontaneous fission is ~5×10^{15} years for U and $>10^{19}$ years for Th. H. V. S. R.

Leningrad Phys.-Tech. Inst.

PANASYUK, I.S., kand. fiz.-mat. nauk

The theory of matter and the progress of physics. Nauka i zhizn' 25 no. 6:31-35 Je '58. (MIRA 11:8)
(Matter)

05433

AUTHORS: Konakhovich, Yu Ya , and Panasyuk, I S.

TITLE: A Flat Crystal Neutron Spectrometer (Neytronnyy Spektrometr s ploskim kristallom)

PERIODICAL: Pribory i tekhnika eksperimenta, 1959, No 2, pp 26-31 (USSR)

ABSTRACT: A photograph of the spectrometer is shown in Fig 1 and a sectional drawing in Fig 2. The spectrometer is set up in the path of the vertical neutron beam of a uranium-graphite reactor. The primary collimator is in the form of a steel tube 2.6 m long. A second collimator filled with a mixture of boron carbide and paraffin is set up at a distance of 1.6 m above the first collimator. The minimum divergence of the diffracted neutron beam is 4. A table with a demountable crystal holder is placed above the second collimator and is followed by an end-window proportional counter of monochromatic neutrons. When diffracted neutrons with energy close to the Maxwell distribution maximum were detected, the number of counts per minute obtained with this counter was 6 5 x 10² which corresponds to 1.6 x 10⁶ neutrons per

Card 1/2

A Flat Crystal Neutron Spectrometer

minute through an area of 12 x 25 mm. The resolving power of the instrument was measured using a cadmium diaphragm placed in front of the counter window. Three types of crystals were used. Calcite $CaCO_3$(100), $d = 3.029 \times 10^{-8}$ cm; lithium fluoride LiF(100), $d = 2.005 \times 10^{-8}$ cm; and quartz SiO_2(1340), $d = 1.177 \times 10^{-8}$ cm. The dimensions of plates were 210 x 40 x (2 - 4) mm. Each crystal consisted of two or three monocrystalline plates. The plates were polished to coincide to within 30". First order reflection neutrons may be detected with calcite between 0.003 and 6 ev, and with lithium fluoride and quartz between 30 and 60 ev. The neutron detector was an end window proportional counter 68 cm long filled with boron trifluoride (natural isotope mixture) at a pressure of 575 mm Hg. Another counter which was used also employed boron trifluoride containing 84% of B^{10} at a pressure of 500 mm Hg. The counter was set up so that the diffracted neutron beam travelled parallel to the counter wire. The resolving power of the counting apparatus was $(2.5 \pm 0.4) \times 10^{-5}$ sec. The counter

Card 2/3

PANASYUK, I.S.

PANASYUK, I.S.

Determining the rate of a chemical and the duration of the induction. Astron. zhur. 38 no. 1:191-192 Ja-F '61. (MIRA 14:2)

1. Institut teoreticheskoy astronomii im. I.V. Kurchatova AN SSSR. (Chemical kinetics) (Isotopes—Decay)

37790
S/120/62/000/002/014/047
E039/E520

AUTHOR: Panasyuk, I.S.

TITLE: On the measurement of absolute activity by a double coincidence method

PERIODICAL: Pribory i tekhnika eksperimenta, no.2, 1962, 63-64

TEXT: It is assumed that the radioactive preparation and the measuring apparatus satisfy the following requirements: 1) Every disintegrating atom emits two types of particle ('a' and 'b') practically simultaneously, isotropically and without angular coupling. (2) The half-life of the preparation should be much greater than the duration of measurement Δt. (3) The measuring apparatus should be a combination of two indicators, each of which is sensitive to both types of particle. The number of pulses on each indicator should be measured (a_1, b_1, a_2, b_2) and also the number of coincidences (index c). There should be a shield such that, the combined flux can be measured on both indicators, or particles of type 'a' should be completely absorbed while particles of type 'b' are unaffected. (4) The arrangement should be such that geometry effects can be neglected. The following formula can then

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be used to calculate the absolute sensitivity S in disintegrations/sec

$$S = (N_{a1} \cdot N_{b2} + N_{a2} \cdot N_{b1}) / \Delta t \cdot N_c \begin{pmatrix} a1 - b2 \\ a2 - b1 \end{pmatrix} \quad (1)$$

where N_{a1}, N_{b1} are the numbers of pulses in time Δt sec on indicator '1' for 'a' and 'b' type particles. N_{a2}, N_{b2} refer to indicator '2'. $N_c \begin{pmatrix} a_1-b_2 \\ a_2-b_1 \end{pmatrix}$ is the number of coincidences in time Δt sec on indicators '1' and '2' for simultaneous counts of 'a' type particles on indicator '1' and 'b' type on indicator '2' and vice versa. This method gives twice as many coincidence counts as are obtained by the earlier method (i.e. particles of type 'a' only counted on indicator '1' etc.). Two particular cases of the described method are given:

1) If particles 'a' and 'b' are sufficiently identical nearly all the above requirements can be neglected. Eq.(1) then becomes

$$S = {}^1/_2 \, N_1 N_2 / \Delta t N_c (1 - 2), \quad (2)$$

where N_1 and N_2 are the number of pulses in time Δt sec on

Card 2/3

PANASYUK, I.S.

Absolute activity measurement by the coincidence method in the case when several identical particles are generated in each decay event. Prib. i tekh. eksp. 8 no.2:66-68 Mr-Ap '63. (MIRA 16:4)

1. Institut atomnoy energii AN SSSR.
(Radioactivity—Measurement)

L 38474-66 EWI(m)
ACC NR: AR6017215 SOURCE CODE: UR/0058/[illegible]/012/A0[illegible]

AUTHOR: Panasyuk, I. S.

TITLE: Measurement of radioactive-source decay rate by the method of coin[illegible]

SOURCE: Ref. zh. Fizika, Abs. 12A521

REF SOURCE: Tr. 6-y Nauchno-tekhn. konferentsii po yadern. radioelektron. T. 1. [illegible] Atomizdat, 1964, 38-43

TOPIC TAGS: radioactivity measurement, radioactive decay, radioactive source, coincidence ~~method~~ counting

ABSTRACT: The effect of the density distribution of radioactive atoms in test samples and self-absorption of radiated particles on the final formulas for c[illegible] lating the absolute activity of compounds during measurements of the decay rate by the method of coincidences has been examined. Several special cases of characteristics of samples have been used, in which complex coefficients were eliminated from the calculation formulas thus making possible to simplify them substantially. I. S. [KP]
[Translation of abstract]

SUB CODE: 18/ SUBM DATE: none

Card 1/1 pb

MIGACH, [illegible], inzh.; KOVALEV, S.K., inzh.; PANASYUK, [illegible], inzh.; [illegible], [illegible], inzh.; BOYKO, [illegible], inzh.

Single-layer wall panels of slag perlite cement. [illegible] MIRA [illegible]
3[illegible] Ag '64.

S/185/60/005/004/[illegible]
D274/D306

9,4177 (1051, 1114)

AUTHORS: Symashkevych, A.V., Kot, I.V. and Panasyuk, [illegible]

TITLE: Induced conductivity in CdTe and ZnSe

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 5, no. 4, [illegible], 504-507

TEXT: The results of measurements are given of [illegible] ity in thin films and single crystals of CdTe and single crystals of ZnSe, under electron bombardment with energies up to 3 - 3.5 kev. The thin CdTe films were obtained by vaporization of a [illegible] men on a glass base in a vacuum of the order of [illegible] mm Hg. ZnSe single crystals were obtained on the walls of a quartz [illegible] er. The measurements were conducted by a method analogous to that of an earlier work by two of the authors. The depencence of the induced conductivity on the current intensity and on the [illegible] the primary electrons was investigated. The surface of the speci- mens was irradiated by an electron beam in order to remove adsorbed

Card 1/3

27?49
S/135/60/005/0...
B274/B306

Induced conductivity. . .

gas (which traps carriers). Figures are given ... pendence of the induced current i_c on the electron ... the electron current i_e. It is evident from the ... CdTe-single crystals i_c increases non-linearly ... dependence of i_c on i_e is linear ... single crystals of ... only. The sensitivity of single crystals of cadmium selenide ... than that of cadmium sulfide or cadmium ... ZnSe crystals ... photoconductivity is also lower. ... observed effect was ... electron bombardment but the ... the dependence $i_c(i_e)$ is linear ... CdTe. For ZnSe, the dependence ... It is noted that ZnSe crystals are ... non-linear. It is ... visible light than CdTe-crystals ... intensities of irradiation ($i_c V$) ... the greater, the smaller i_e or the ... conductivity depends linearly on the ... This confirms the theory developed ... 24, 961, 1954). Computations showed that ... of primary electrons ...

Card 2/3

Induced conductivity...

27949
S/185/60/005/004/006/021
D274/D306

(with energies from 1 to 4 Kev), and in ZnSe from $4.6 \cdot 10^{-3}$ to $7.4 \cdot 10^{-2}$ μ. Thus, one of the reasons for increased conductivity with greater energy of primary electrons, is their depth of penetration. There are 6 figures and 9 references: 3 Soviet-bloc and 6 non-Soviet-bloc. The references to the English-language publications read as follows: R. Kronig, Phys Rev., 73, 1212, 1948; L. Pensak, Phys. Rev., 79, 171, 1950; F. Ansbacher, H. Ehrenberg, Proc. Phys. Soc., A36, 362, 1951

ASSOCIATION: Kyshynivs'kyy derzhavnyy universytet (Kishinev State University)

SUBMITTED: November 12, 1959

Card 3/3

22037

24,7700(1035,1043,1148)
26.2421

AUTHORS: Simashkevich, A. V., Kot, ... Y., and Ianasyuk, ...

TITLE: Effect of the contact material on the cathode conductivity of cadmium sulfide and cadmium selenide

PERIODICAL: Fizika tverdogo tela, v. 3, no. ..., 1961, ...

TEXT: While the effect of the contact material on the photoconductivity of CdS has been studied many times before, among others also by V. E. Lashkarev, D. N. Lazarev, and M. K. Sheynkman, its effect on the cathode conductivity had not yet been investigated. The authors have investigated now the effect of ohmic and nonohmic contacts on the distribution of the cathode sensitivity in single crystals of CdS and CdSe by a probe method described by them in Ref. 4 (Uch. zap. Kishinevsk. gos. univ. ..., ..., 1957). To study the role of the electrodes, "probe characteristics" were taken, i.e., the samples were irradiated by a narrow electron probe which could be moved from one electrode to the other. The single crystals studied came from I. B. Mizetskaya of IF AN USSR (Institute of Physics, AN ...). The electrodes were evaporated on the crystal in vacuo. The distance

Card 1/4

S/181/61/003/004/[illegible]
B102/B214

Effect of the contact ...

between them was about 5 mm, 10 times as large as the diameter of the probe. In all, three groups of samples were measured: The first group consisted of CdS and CdSe crystals with ohmic contacts (In), the second of such with nonohmic contacts (Au), and the third of mixed contacts (In - Au). The crystals showed no cathodoluminescence. Fig. 1 shows a typical probe characteristic for samples of the first group. The ordinate is the cathode conduction current I_k, defined as the difference between the current flowing through the sample on irradiation and the dark current. The abscissa is the potential between the plate moving the probe and one of the electrodes. The characteristics in Fig. 1 were taken for a single crystal of CdSe with an electron energy V_1 = [illegible] kev, a current strength of the irradiating beam $I_1 = 4 \cdot 10^{-8}$ a, and a potential of [illegible] v at the sample. Curve 2 was taken for the reversed polarity. A characteristic feature of these samples is that the cathode conductivity in the central region is practically independent of the point of incidence of the electron beam and of the direction of the field. Fig. 2 shows analogous characteristics for single crystals of CdSe with Au contacts. (V_1 = [illegible] kev,

Card 2/4

Effect of the contact ...

$I_1 = 1 \cdot 10^{-7}$ a, and 25 v at the sample). Here, the relationships are completely reversed: The cathode conductivity drops in the region near the cathodes and reaches a maximum in the central region (near the electrode which, at the given moment, is the cathode). Fig. 3 shows the characteristics of CdSe with mixed contacts (2.4 kev, $6 \cdot 10^{-7}$ a, 25 v). Independently of the polarity, the lowest conductivity here is on the side of the Au contact near which also a maximum of the characteristic appears. A minimum appears near the In contact, and in the immediate neighborhood there occurs a steep rise independently of the polarity. The results are indicative of a special role of the holes on irradiation of parts away from the cathode. The authors thank D. N. Nasledov for advice and interest. There are 3 figures and 4 references: 2 Soviet-bloc and 2 non-Soviet-bloc.

ASSOCIATION: Kishinevskiy gosudarstvennyy universitet (Kishinev State University)

SUBMITTED: May 10, 1960 (initially), November 30, 1960 (after revision)

Card 3/4

22037

S/181/61/003/004/003/030
B102/B214

Effect of the contact ...

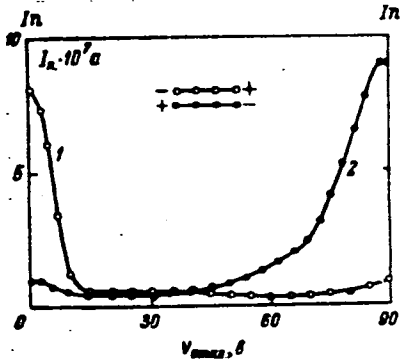

Рис. 1.

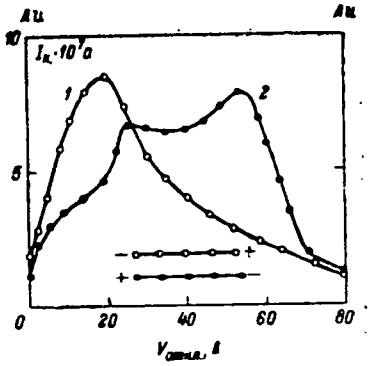

Рис. 2.

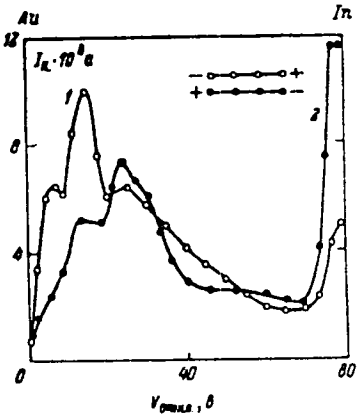

Рис. 3.

Card 4/4

L 52781-65 EWT(l)/EWT(m)/EWG(m)/T/EWP(t)/EWP(b)/EWA(h) Pz-6/Peb
IJP(c) RDW/JD/AT

ACCESSION NR: AP5010746 UR/0181/65/007/004/1242/1243

AUTHOR: Kot, M. Y.; Panasyuk, L. M.; Simashkevich, A. V.; Tsurkan, A. Ye. 31 29 B

TITLE: Intrinsic recombination radiation of zinc telluride 21

SOURCE: Fizika tverdogo tela, v. 7, no. 4, 1965, 1242-1243

TOPIC TAGS: zinc telluride, recombination radiation, intrinsic radiation, pn junction, voltage current characteristic, spectral distribution

ABSTRACT: This is the first known investigation of recombination radiation produced by injection through a zinc-telluride p-n junction. The junctions were produced in single-crystal zinc telluride plates with area up to 1 mm^2. The test consisted of determining the voltage-current characteristic, the spectral distribution of the recombination radiation at various current densities, and the dependence of the radiation intensity on the current density. The dark voltage-current characteristics are strongly asymmetrical, with the forward current being approximately 10 mA at 2 V and the inverse current being 5 μA at 8 V. Passage of current through the sample in the transmission direction results in recombination radiation with an emission band lying in the 0.5--0.7 μ wavelength interval. With increasing

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ACCESSION NR: AP5010746

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current density, the intensity of the radiation increases and the width of the band decreased as a result of the shift of the long-wave boundary toward shorter wavelengths. The energy of the radiation quanta was determined from the positions of the maxima of the spectral curves to be 2.1--2.2 eV, corresponding to the width of the forbidden band of zinc telluride at room temperature. It is thus concluded that the radiation observed is intrinsic recombination radiation. The intensity of the radiation at room temperature increases somewhat faster than linear up to current densities of 5 A/cm^2. When the current density exceeds 1 A/cm^2, the radiation can be observed visually both in the direction parallel to the plane of the junction and perpendicular to it. The brightness amounted to 5 nit at 20C and 50 nit at 77K. "The authors thank Professor D. N. Nasledov for continuous interest in the work and for valuable advice." Orig. art. has: 2 figures.

ASSOCIATION: Kishinevskiy gosudarstvennyy universitet (Kishinev State University)

SUBMITTED: 24Apr64 ENCL: 00 SUB CODE: SS, OP

NR REF SOV: 000 OTHER: 000

BAE

Card 2/2

L 52790-65 EWT(l)/EWT(m)/EWG(m)/T/EWP(t)/EWP(b)/EWA(h) Pz-6/Peb
IJP(c) RDW/JD/AT

ACCESSION NR: AP5010747 UR/0181/65/007/004/1244/1245

AUTHOR: Kot, M. V.; Panasyuk, L. M.; Simashkevich, A. V.; Tsurkan, A. Ye.; Sherban, D. A.

TITLE: On the intrinsic recombination radiation of ZnSe--ZnTe heterojunctions

SOURCE: Fizika tverdogo tela, v. 7, no. 4, 1965, 1244-1245

TOPIC TAGS: heterojunction, pn junction, recombination radiation, intrinsic radiation, voltage current characteristic, spectral distribution

ABSTRACT: The authors report the first successful attempt to produce n-p heterojunctions ZnSe--ZnTe in crystal-layer form, to obtain effective injection of minority carriers, and to observe intrinsic recombination radiation. The voltage-current characteristic of such junctions has the usual diode character. The forward current was several milliamperes at 2 V, and the inverse current up to 20 μA at 5 V. The dependence of the short-circuit current on the illumination, the lux-ampere characteristics, and the spectral distribution of the photo emf were investigated. In all the samples the short-circuit current depends linearly on the illumination. The no-load voltage was 0.6--0.7 V. The samples were sensitive to

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light in the wavelength interval 0.4--0.65 μ. Recombination radiation was observed when current flowed in the transmission direction of such a junction. The radiation became visible at current densities on the order of 0.2 A/cm^2. The recombination radiation occupies the wavelength band in the interval 0.44--0.75 μ, and the intensity of the radiation increased with increasing current density. The corresponding quantum energy is 2.6 and 1.82 eV, which agrees with the respective widths of the forbidden bands of ZnSe and ZnTe at room temperature (2.6 and 2.1 eV). The integral radiation intensity is practically linear with the current, and at room temperature the glow brightness was approximately 50 nit, increasing to 150 nit at liquid-hydrogen temperature for a 1 mm^2 junction area. "The authors are deeply grateful to Professor D. N. Nasledov for continuous interest in the work and valuable advice." Orig. art. has: 2 figures.

ASSOCIATION: Kishinevskiy gosudarstvennyy universitet (Kishinev State University)

SUBMITTED: 24Apr64 ENCL: 00 SUB CODE: SS, OP

NR REF SOV: 000 OTHER: 000

BAB

Card 2/2

NECHAYEV, G.K.; PANASYUK, L.S.

Thermostatic control of electric motors. Avtomatyka no.2:25-30 '56.
(MLRA 9:10)

1.Institut yelektrotekhniki Akademii nauk URSR.
(Thermostat) (Electric motors)

Category : USSR/ Magnetism - Ferromagnetism

Abs Jour : Ref Zhur - Fizika, No 1, 1957 No 1415

Author : Zaychikov, N. N., Zheltenkova, R. M., Kondratova, C. T., Korost... Korotkov, Yu. Ye., Mashirin, B. I., Mynkin, Yu. N., Panasyuk, L. S.

Title : Investigation of the Effect of the Chemical Composition on Magneti Properties of Electrotechnical Iron.

Orig Pub : Tr. Mosk. aviats, in-ta, 1956, vyp. 60, 4-12

Abstract : A statistical study was made of the effect of grain size of the micro-structure and of the chemical composition on the value of H_c of Armco ir... was data obtained in regular production shop tests of the melts (Chemical value of H_c and the percentage carbon content was found to be r... = ...31, and the correlation between H_c and the percentage sulphur contents was r ... = 0.372. H_c increases with increasing contents of C or S. The content of Mn, P, Mi, and Cu, doe s not exert a noticeable effect on H_c provided its value is within the GOST standard limit. A statistical comparison of the data on the size of the grain of the micro-structure of Armco iron and on H_c disclosed a linear relationship between these quantities, and the correlation coefficient was found to be $r_{C,3}$ = 0.555. The maximum

Card : 1/2

Category : USSR/Magnetism - Ferromagnetism

Abs Jour : Ref Zhur - Fizika, No [illegible]

The maximum effect [illegible] H_c is exerted [illegible] the size [illegible] grain. The value [illegible] H_c increases with diminishing grain size. The joint simultaneous influence of three factors on H_c [illegible] is given by the multiple correlation coefficient

$$R_{0,1,2,3} \sqrt{0.217 r_{0.1} + 0.208 r_{0.2} + 0.512 r_{0.3}} = 0.653$$

Card : 2/2

PANASYUK, L.S.

9(6) PHASE I BOOK EXPLOITATION SOV/2773

Poluprovodnikovyye termosoprotivleniya; sbornik statey (Thermistors; Collection of Articles) Moscow, Gosenergoizdat, 1959. 229 p. 13,000 copies printed.

Ed. (Title page): B. S. Sotskov, Doctor of Technical Sciences, Professor; Ed. (Inside book): V. A. Petrov; Tech. Ed.: G. I. Matveyev; Editorial Board: B. S. Sotskov, Doctor of Technical Sciences, Professor (Chief Ed.), B. P. Ushakov, Candidate of Technical Sciences, N. S. Laytsev, Engineer, Ye. N. Shagurov, Engineer, and V. I. Turkulets, Engineer.

PURPOSE: This collection of articles is intended for engineering and technical personnel of plants, OKB, NII and also instructors and students of vuzes.

COVERAGE: The book contains articles dealing with problems of manufacture of thermistors and determining thermistor parameters and characteristics. The authors also discuss problems of industrial application of thermistors as control elements. The book is an effort of cooperation by scientists of a number of vuzes, members of NII and engineers of one of the plants (name is not given) of Mosgorsovnarkhoz. No personalities are mentioned. References appear at the end of some articles.

Zakharov, G. I., L. S. Panasyuk and N. M. Pisarevich. UTS-1 Temperature Signalling Device — 192

The authors discuss the construction of a temperature signalling device for controlling temperature of bearings of various units of power plants such as boilers, turbines, etc. He describes the principle of its operation and explains the construction of a thermistor heat detector cell. There are 3 references, all Soviet.

Konstantinov, L. K. Use of Thermistors for Controlling Temperature in Refrigerator Railroad Cars. — 203

The author discusses the experience acquired in using MMT-1 and MMT-4 types of thermistors for remote control and measuring temperature in refrigerator railroad cars. He presents circuits used and describes their operation. There are 3 references, all Soviet (including 2 translations).

Baranov, B. V. Selection of Circuit Elements for Regulating Temperature in Networks With Thermistors on The Basis of Relay Effect — 206

The author discusses methods of calculating circuits for regulating temperature in networks with thermistors on the basis of the relay effect. He also explains the concept of relay effect in some types of thermistors. There are 2 references, both Soviet.

Shagin, L. A. Use of Thermistors in Hydrometric Devices.

The author discusses a device for measuring average rate of water flow used in Leningrad water supply systems and describes methods of calculating parameters of basic units of the device. There are 6 references: 4 Soviet and 2 English.

Salganik, I. V. Use of Thermistors in Automobile Thermometers — 220

The author discusses thermistor [illegible] controlling temperature of automobile-engine cooling liquid used in some Western countries. There are 5 references, all Soviet (including 1 translation).

YEREMEYEV, I.S.; PANASYUK, L.S.

Automatic control system for charging hoppers with molding mixtures. Lit. proizv. no.1:17-19 Ja '62. (MIRA 16:8)

(Sand, Foundry)
(Foundries—Equipment and supplies)

PANASYUK, L.S.

Automatic digital computer for proportioning cupola charges.
Avtom.i prib. no.3:9-11 Jl-S '62. (MIRA 16:2)

1. Institut liteynogo proizvodstva AN UkrSSR.
(Electronic computers)
(Foundries—Equipment and supplies)

KRYZHANOVSKIY, O.M., doktor tekhn.nauk; SOLTYK, V.Ya.; PANASYUK, L.S.

Optimalizing control of billet heating in a soaking pit.
Avtom.i prib. no.3:15-18 Jl-S '62. (MIRA 16:2)

1. Institut liteynogo proizvodstva AN UkrSSR.
(Furnaces, Heating) (Electronic control)

VRUBLEVSKIY, V.I., inzh.; KRYZHANOVSKIY, O.M., inzh.; PANASYUK, L.S., inzh.; RAVICH, K.S., inzh.; SHCHUR, A.G., inzh.; GARNAZHENKO, T.O., inzh.; LEBEDEV, Ye.I., inzh.; PSAREV, A.M., inzh.; SALATSINSKIY, V.V., inzh.; SHOKAREV, V.A., inzh.

Over-all mechanization and automation of the compsition of charge. Mashinostroenie no.6:45-47 N-D '62. (MIRA 16:2)

1. Institut liteynogo proizvodstva, AN UkrSSR (for Vrublevskiy, Kryzhanovskiy, Panasyuk, Ravich, Shchur). 2. Toretskiy mashinostroitel'nyy zavod (for Garnazhenko, Lebedev, Psarev, Salatsinskiy, Shokarev).
(Cast iron--Metallurgy) (Automation)

PANASYUK, L.S.

Digital optimalizing controller for inertial thermal processes. Avtom. i prib. no.2:16-19 Ap-Je '63. (MIRA 18:8)

1. Institut liteynogo proizvodstva AN UkrSSR.

ACCESSION NR: AP4040428 S/0302/64/000/002/0046/0048

AUTHOR: Panasyuk, L. S.

TITLE: Miniature three-phase pulse generators

SOURCE: Avtomatika i priborostroyeniye, no. 2, 1964, 46-48

TOPIC TAGS: pulse generator, three phase pulse generator, contactless pulse generator, silicon diode, diode switch, ferrite diode logic circuit, automatic control system, electronic computer, electronic digital computer

ABSTRACT: A contactless three-phase pulse generator using silicon-diode switches has been developed by the Institut problem lit'ya (Institute for Foundry Problems) of the Academy of Sciences UkrSSR. The generator supplies ferrite-diode logic circuits with pulses having a phase shift of 120° and produces both operating and blocking pulses. Blocking of the diode switches is carried out by pulse transformers and discharge circuits. A master oscillator acts as a source of driving pulses. The discharge of a capacitor through diode

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ACCESSION NR: AP4040428

switches is used to obtain the required shape of the pulses. These diodes are connected in series with the loads of three channels. With a pulse amplitude greater than 7 amp and a load consisting of 30 magnetic logic elements, a repetition frequency of 1—1.5 Kc is ensured in each channel. The steepness of the pulse front is about 2 amp/μsec. The power of the generator can be increased by 1 to 1.5 times by using high-voltage diode switches connected in series (three in each channel). The generator is distinguished by high reliability, long operating life, stability against mechanical effects, simplicity, small dimensions, and a wide range of operating temperatures (-20 to +70C). It is also free of the disadvantages of generators using thyratrons and transistors. Orig. art. has: 2 figures.

ASSOCIATION: none

SUBMITTED: 00	ATD PRESS: 3056	ENCL: 00
SUB CODE: EC	NO REF SOV: 003	OTHER: 000

Card 2/2

L 63665-65 EWT(d)/EED-2/EWP(1) IJP(c) BB/GG
ACCESSION NR: AP5016084 UR/0302/65/000/002/0023/0025 25
681.142.621 19
B

AUTHOR: Kryzhanovskiy, O. M. (Doctor of technical sciences); Panasyuk, L. S. (Candidate of technical sciences); Muzykant, A. M.; Zakuta, M. B.

TITLE: Contactless reversible analog-to-digital converter

SOURCE: Avtomatika i priborostroyeniye, no. 2, 1965, 23-25

TOPIC TAGS: analog to digital converter

ABSTRACT: A simple small-size contactless angle-increment-into-pulses converter was developed and tested under actual operating conditions. A dural disk carrying a few ferrite permanent-magnet segments is rotated (by sensor voltage) in the fields of two iron-core coils. The coil inductance changes by 6—10 times when the magnetic segment enters its field; thus, the operation of a number of triggers is controlled. The use of two coils also permits determining the direction of disk rotation. Stable operation within -60 + 100C of the converter is

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L 63665-65

ACCESSION NR: AP5016084

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claimed. The converter has been in operation for one year in the extremal-control system of a cupola-furnace blast at the Voronezhsel'mash Plant and also in the automatic mixture-charging system of a cupola furnace at the Yaroslavl' Motor Plant. Orig. art. has: 2 figures.

ASSOCIATION: Institut problem litiya AN UkrSSR (Institute of Founding Problems, AN UkrSSR); AN Latvian SSR)

SUBMITTED: 00 ENCL: 00 SUB CODE: DP

NO REF SOV: 002 OTHER: 000

Card 2/2

L 12977-66 EWT(1)/EWA(h)

ACC NR: AP6001522 SOURCE CODE: UR/0302/65/000/004/0066/0068

AUTHOR: Kryzhanovskiy, O. M.; Muzykant, A. M.; Panasyuk, L. S.; Tartak, V. G.; Fedorenko, A. G.

ORG: None

39
15

TITLE: An oscillator based on switching diodes for generating three-cycle current pulses for magnetic logic elements

SOURCE: Avtomatika i priborostroyeniye, no. 4, 1965, 66-68

TOPIC TAGS: logic element, magnetic core storage, pulse oscillator, junction diode

ABSTRACT: A three-cycle pulse generator based on diodes has been developed by the Institute of Foundry Problems AN UkrSSR (Institut problem lit'ya). The generator (Fig. 1) is a ring-type three-place 1/2-wave shift register. The elements in the register are three-winding transformers Tr_1-Tr_3 (ferrite cores with rectangular hysteresis loop) and switching diodes D_5-D_{10} connected in series with junction diodes D_2-D_4. The cadence pulse source for the register is an RC relaxation oscillator. The load is connected in the cathode circuit of the switching diodes. In the initial state, diodes D_5-D_{10} are closed and capacitors C_2-C_4 are charged nearly to the voltage of the power supply. The oscillator is triggered by prerecording a "1" in two elements of the shift register, e.g. Tr_1 and Tr_2. With the first cycle of the master oscillator, both "1's" are transcribed and pulses are shaped in the W_1 windings of these transformers which open switching diodes D_5, D_6, D_7 and D_8 simultane-

Card 1/3 UDC: 621.373.54

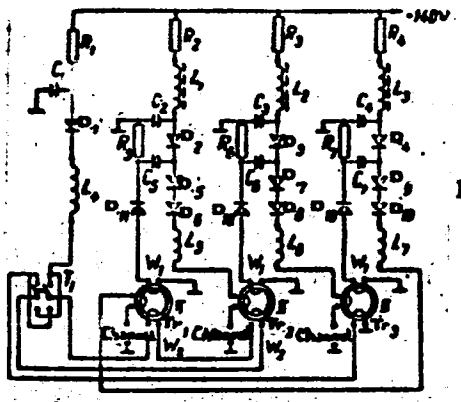

Fig. 1. Principle diagram of the generator.

ously through transfer circuits D_{11}-C_5-R_5 and $D_{12}C_6R_6$. The discharge current from capacitors C_2 and C_3 generates a corresponding current pulse in the load: in circuit D_5, D_6—a blocking pulse from channel I recording a "1" in Tr_2; in circuit D_7, D_8—an advancing pulse from channel II recording a "1" in Tr_3. Upon completion of the capacitor discharge, diodes D_5-D_8 are opened and the capacitors are charged through charging resistors R_2 and R_3 and coils L_1 and L_2 connected in series with these resistors. On the next cycle of the master oscillator, diodes D_7, D_8 and D_9, D_{10} are opened, shaping a blocking pulse in channel II and an advancing pulse in channel III, respectively. These pulses record a "1" in Tr3 and Tr1. With the third cycle of the master oscillator, the diodes for channels I and III are opened, generating

L 12977-66

ACC NR: AP6001522

a blocking pulse in channel III and an advancing pulse in channel I, and a "1" is recorded in Tr_1 and Tr_2. Recording and readout are automatic. The original "1" is recorded on the cores of transformers Tr_1 and Tr_2 by reversing the direction of current in the W_2 windings of these transformers through switch T_1. The switching diodes used in the device give advancing pulses with a current amplitude of 6 a with a load of up to 500 magnetic logic elements at a prf of 1—1.5 kc. The pulse duration is 6 μsec with a leading edge slope of 2.5 a/μsec. Orig. art. has: 4 figures.

SUB CODE: 09 / SUBM DATE: none / ORIG REF: 003

Card 3/3

ACC NR: AP7004658 SOURCE CODE: UR/0432/66/000/001/0032/0033

AUTHOR: Panasyuk, L. S. (Candidate of technical sciences); Zakuta, M. B.; Muzykant, A. M.

ORG: none

TITLE: Contactless pulse-type position transducer

SOURCE: Mekhanizatsiya i avtomatizatsiya upravleniya, no. 1, 1966, 32-33

TOPIC TAGS: control circuit, electromechanic converter, electronic circuit, contactless position transducer

ABSTRACT: A simple and highly reliable contactless position transducer is described. The transducer (see Fig. 1) consists of a movable magnet M with a constant field intensity of approximately 1500 Oe and a fixed toroidal core T_p (dimensions 10 x 2 x 7 mm) made from IM-2 ferrite with rectangular hysteresis loop. The core is magnetized with 5—8-kc semipolar pulses (amplitude, 5—8 amp; rise time 8 a/μsec) generated by an RC relaxation oscillator with a switching diode D. The voltage required to switch the diode is 50—70 v. Movement of the magnet changes its magnetic coupling with the toroidal core and produces output pulses in the winding W. Pulse amplitude is proportional to the magnetic coupling between the magnet and the core. Tests revealed the output pulse amplitude to be stable within ±1% for supply voltage variations of ±30% for samples having a spacing of 5 mm between the magnet and the core. The

Card 1/2 UDC: 621.398.694.4.531.4

Card 2/2

YEREMEYEV, Igor' Semenovich; PANASYUK, Leonid Stepanovich; TITOVA, N.M., red.; DAKHNO, Yu.B., tekhn. red.

[Automatic control devices using magnetic elements] Ustroistva avtomatiki na magnitnykh elementakh. Kiev, Izd-vo AN Ukr.SSR, 1963. 105 p. (MIRA 17:1)

PANASYUK, L. V.

Lignins of cotton husks. V. G. Panasyuk, V. V. Dal', and L. V. Panasyuk (Chem. Technol. Inst., Dnepropetrovsk). *Zhur. Prikład. Khim.* 28, 1211–14(1955).—Aq. NaOH extn. from cotton husks about 7% of an alkali lignin and a fraction of a difficultly extractable lignin. The MeO content (10.7%) in the material was comparable to alkali lignins from other plant sources. The aq. soln. after sepn. of the alkali lignin contains a substance which with 72% H_2SO_4 yields a ppt. contg. 2.91% MeO. Extn. of the husks after EtOH-C_6H_6 treatment with CH_3OH 1 hr. at 180° yielded about 8% "glycol lignin" in a form of a low-melting resin contg. 12.4% MeO. The Willstätter or Konig method gives too-high results for lignin in cotton husks.
G. M. Kosolapoff

Synthesis of benzyl ethers of cellulose in the presence of xylene. E. N. Lynbimova. *Zhur. Prikład. Khim.* 28, 1220–4(1955).—Addn. of 10–20% xylene to the reaction mixts. of aq. NaOH, cellulose, and $PhCH_2Cl$ serves to improve the prepn. of benzylcellulose by reducing the viscosity and adherence of the product near the end of the operation and facilitates washing of the final product. In such esterification with 3 moles $PhCH_2Cl$/mole cellulose it is advisable to add xylene some 2 hrs. after initiation of the reaction.
G. M. Kosolapoff

PANASYUK, L. V.

3

Hydrolysis of lignin from cotton hulls. V. G. Panasyuk, V. V. Dal, and L. V. Panasyuk (Chem.-Technol. Inst., Dnepropetrovsk). *Zhur. Prikład. Khim.* 29, 144–6(1956); cf. *C.A.* 47, 12800b.—The compn. of lignin obtained from hydrolytic lignin (I) and from cotton hulls (II) is the same. After 20 extns. with 5% NaOH of I and II hydrolyzed with 72% H_2SO_4 the quality and the quantity of lignin obtained was the same. But whereas it was easily removed from the H_2O soln. of I, that from II remained partially in soln. The MeO content after digestion with NaOH was low, 2.95–3.78%, whereas lignin digested with ethylene glycol contained 10.25% of the MeO group. Apparently MeO is broken off during digestion with NaOH. L. Penkowitz

PANASYUK, V.G.; REPKA, V.P.; PANASYUK, L.V.

Standard design for a hydrolysis-furfurole plant. Gidroliz.i lesokhim.prom. 13 no.1:27 '60. (MIRA 13:5)

1. Dnepropetrovskaya laboratoriya khimicheskoy pererabotki rastitel'nykh otkhodov.
(Wood--Chemistry) (Furaldehyde)

PANASYUK, V.G.; REPKA, V.P.; PANASYUK, L.V.; TRUBA, T.I.

Preparation of furfural and other chemicals from plant wastes.
Report No.1: Experiments in the laboratory and industrial units.
Gidroliz. i lesokhim.prom. 13 no.5:6-7 '60. (MIRA 13:7)

1. Dnepropetrovskiy sel'skokhozyaystvennyy institut.
(Furaldehyde)

PANASYUK, V.G.; REPKA, V.P.; PANASYUK, L.V.

Dnepropetrovsk method for obtaining furfurole from tan waste. Gidroliz. i lesokhim. prom. 14 no.5:8-9 '61. (MIRA 16:7)

1. Dnepropetrovskaya opornaya laboratoriya UkrNIIplastmass.
(Furaldehyde)

PANASYUK, V.G.; REPKA, V.P.; PANASYUK, L.V.

Influence of various factors on furfurole production from plant wastes by the Dnepropetrovsk method. Zhur. prikl. khim. 34 no. 12:2764-2768 D '61. (MIRA 15:1)

(Furaldehyde)

KRETOV, A.Ye.; PANASYUK, L.V.

Reaction of p-dimethylamino- and p-diethylaminobenzaldehydes with dicyanodiamides. Zhur. ob. khim. 32 no.1:96-97 Ja '62. (MIRA 15:2)

(Benzaldehyde) (Amides)

REPKA, V.P.; PANASYUK, L.V.; PANASYUK, V.G.

Possibility of the use of salt catalysts in the production of furfurole. Zhur. prikl. khim. 36 no.12:2719-2724 D'63. (MIRA 17:2)

1. Dnepropetrovskaya opornaya laboratoriya Ukrainskogo nauchno-issledovatel'skogo instituta plasticheskikh mass.

Panasyuk, M. I.

25687 PANASYUK, M. I.

Prostoy sposob izgotovleniya plodovykh, yagodnykh i ovoshchnykh konservov.
Sad i ogorod, 1948, No. 7, s. 61-63.

SO: Letopis' Zhurnal'nykh Statey, No. 2 , Moskva, 194

PANASYUK, M.I.
25687

Prostoy Sposob Izgotovleniya Plodovykh; Yagodnykh I Ovoshchnykh [illegible].
Sad I Ogorod, 1948, no. 7, c. 61-63

SO: LETOPIS NO. 30, 1948

PANASYUK, M.I.

Wine and Wine Making

Natural wines [illegible]. Vin. SSSR 12, no. [illegible].

MONTHLY LIST OF RUSSIAN ACCESSIONS, [illegible], AUGUST 1952. [illegible].

PANASYUK, M.I.

Fruit Wines

Natural wines from [illegible] les having a high [illegible] content. Vin. SSSR 12, no. 1, 1952.

MONTHLY LIST OF RUSSIAN ACCESSIONS, LIBRARY OF CONGRESS, AUGUST 1952. Unclassified.

PANASYUK, M. I.

Fruit Wines

Dessert varieties of fruit and berry wines. Vin. SSSR, 12, No. 2, 1952.

9. Monthly List of Russian Accessions, Library of Congress, June 1952. Unclassified.

PANASYUK, M.I.

Varieties of cherries for compotes. Kons. i ov. prom. 16 no.10: 32-34 O '61. (MIRA 14:11)

1. Mleyevskaya opytnaya stantsiya sadovodstva imeni L.P. Simirenko.
(Cherry--Varieties)

PANASYUK, M.I.

Best varieties of cherry for the manufacture of juices. Kons.i ov. prom. 16 no.2:34-35 F '61. (MIRA 14:4)

1. Mleyevskaya opytnaya stantsiya sadovodstva imeni I.P.Simirenko.
(Cherry) (Fruit juices)

PANASYUK, M.I.

Selecting plum varieties for drying. Kons.i ov.prom. 17 no.5: 36-38 My '62. (MIRA 15:5)

1. Mleyevskaya opytnaya stantsiya sadovodstva imeni L.P. Simirenko.
(Plum--Varieties) (Fruit--Drying)

PANASYUK, Mikhail Ignat'yevich [Panasiuk, M.H.]; SEMENOV, O.G. [Sem'onov, O.H.], red.

[Processing fruits and berries] Pererabka plodiv i iahid. Vyd.2., perer. i dop. Kyiv, Derzh.vyd-vo sil'khoz.lit-ry, 1958. 175 p. (MIRA 12:1)
(Fruit) (Berries)

PANASYUK, M. T. DECEASED

Food Science see ILC

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238920014-1"

ACC NR: AP6036779 (N) SOURCE CODE: UR/0401/66/000/011/0032/0033

AUTHOR: Gerasimenko, V. (Engineer; Lieutenant colonel); Panasyuk, N. (Senior lieutenant; Technician); Sementsul, I. (Lieutenant)

ORG: none

TITLE: If an engine has been submerged in water...(Salvaging waterlogged tank engines)

SOURCE: Starshina-serzhant, no. 11, 1966, 32-33

TOPIC TAGS: diesel engine, vehicle engine, military tank, servicing technique

ABSTRACT: The precedures undertaken within a military unit to restore the waterlogged diesel engine of a tank to operation, after water has seeped into the engine compartment and reached the level of the engine vents, are described in detail. Experience has shown that with proper servicing, the engine can be salvaged without any aftereffects. [SC]

SUB CODE: 21, 19/ SUBM DATE: none

Card 1/1 UDC: none

VEREMEYEVA, A.A., inzh.; DUL'ZON, N.A., inzh.; KOBERNIK, Ye.D., inzh.; PANASYUK, N.G., inzh.; SAVOST'YANOV, Yu.Ye., inzh.

Protection of generators from various stator windings damages by means of differential current transformers. Elek. sta. 36 no.[illegible] 40-45 F '65. (MIRA 18:4)

PANASYUK, O. A., Cand. Tech. Sci. (diss) "Magnetic-soft Metal-Ceramic Materials," Kiev, 1961, 19 pp. (Acad. of Sci. UkrSSR. Dept. Tech. Sciences) 170 copies (KL Supp 12-61, 272).

L 63843-65 EWT(1)/FCC GW

ACCESSION NR: AP5020232 UR/0069/65/027/004/0609/0613
541.18.053

AUTHORS: Tovbin, M. V.; Panasyuk, O. A.; Oleynik, L. N. 55 55 55

TITLE: On the critical dimensions of disintegrating liquid droplets

SOURCE: Kolloidnyy zhurnal, v. 27, no. 4, 1965, 609-613

TOPIC TAGS: rainfall, liquid droplet, droplet dimension 12,55

ABSTRACT: Parameters entering into the equation

$$r_k = \sqrt[3]{\frac{6}{K_f}\cdot\frac{\sigma}{\rho u^2}} = 2{,}3\,\frac{\sigma}{\rho u^2},$$

for the critical radius of disintegrating droplets were determined experimentally. This equation was presented by V. G. Levich (Fiziko-khimicheskaya gidromekhanika, M., 1961). Here r_k is the critical radius of the disintegrating droplet, σ the surface tension of the liquid, u the velocity of fall of the droplet, ρ density of air, and $K_f = 0.5$ is the friction coefficient. The parameters were determined by

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L 63843-65

ACCESSION NR: AP5020232

2

visually observing the disintegration of droplets (adhering to a platinum wire) by a stream of air of known velocity. The following systems were studied: water, ethanol, carbon tetrachloride, benzene, and aqueous solutions and emulsions of isoamyl, hexyl, and heptyl alcohols. The experiments were carried out at 20C. It was found that good agreement with Levich's equation was obtained when the constant K_f was changed from 0.5 to 4.28. Orig. art. has: 3 tables, 2 graphs, and 2 equations.

ASSOCIATION: Kiyevskiy universitet, Kafedra fizicheskoy i kolloidnoy khimii (Kiev University, Department of Physical and Colloid Chemistry)

SUBMITTED: 12Mar64 ENCL: 00 SUB CODE: GC, ME

NO REF SOV: 001 OTHER: 006

Card 2/2

PANASYUK, P. I.

The utilization of lignin as a raw material in the plastics industry. I. P. Losev, V. S. Kaminskii and P. I. Panasyuk. Lesokhim. Prom. 2, No. 7, 30-4(1939); Chem. Zentr. 1939, II, 3888; cf. C. A. 34, 5563[8].--Lignin with a water content of 3% was condensed with wood tar or with the phenol fractions obtained therefrom (with 33-49% phenol) and also with the phenol sepd. from the latter by treatment with NaOH and acids. H_2SO_4 in an amt. equal to 5% of the phenol served as a catalyst. The condensation products obtained showed more or less satisfactory properties depending upon the temp. and the amt. of lignin used. With 140-50% lignin (calcd. on the phenol) and a temp. of about 135° a product was obtained which, when powdered, mixed with 50% wood powder, and pressed into bars, showed an impact resistance of 3.3 kg.-cm. per sq. cm. and an increase in wt. of 0.7% after soaking 24 hrs. in water.

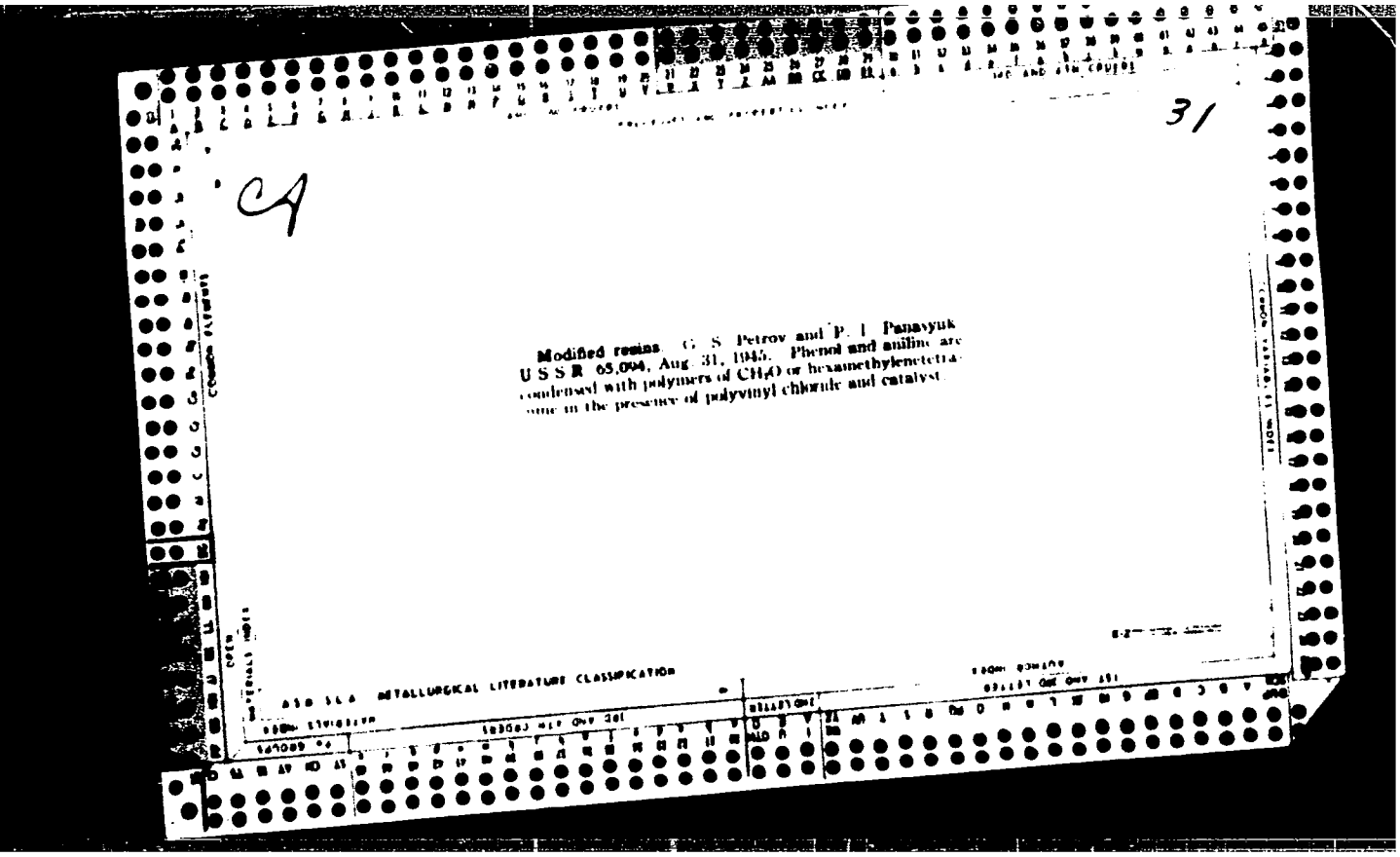
M. G. Moore

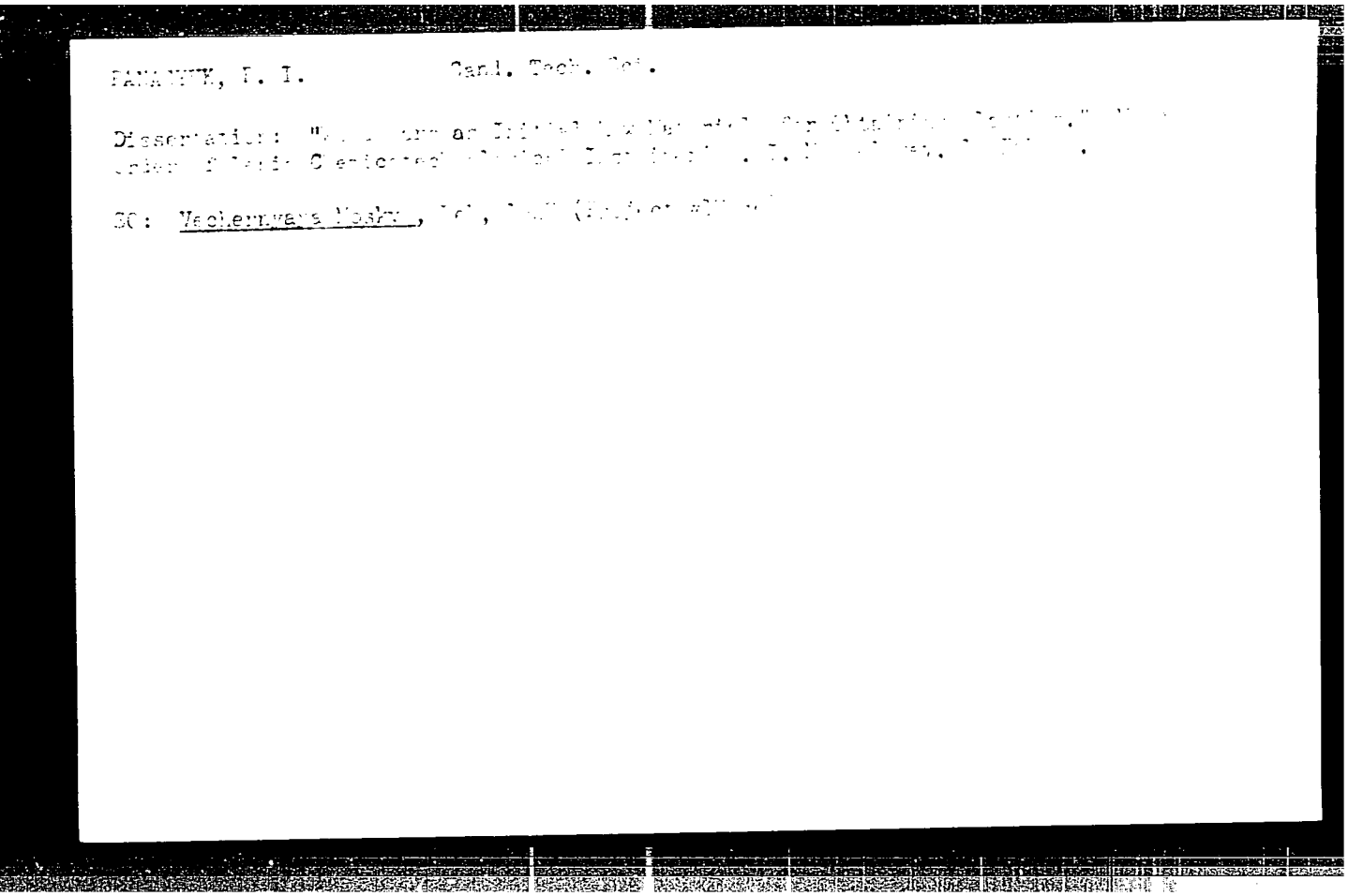
PROCESSES AND PROPERTIES INDEX

Polymeri[illegible] of methyl methacrylate with $(NH_4)_2S_2O_8$. [illegible] Rutovskii and P. I. Panasyuk. *Khim. Prom.* 1946, No. 5, 21-5. With the object of obtaining screens for 3-color photography, emulsion polymerization of Me methacrylate with $(NH_4)_2S_2O_8$ as catalyst was studied. Industrial wastes of Me methacrylate polymer were depolymerized by heating in a Wurtz flask connected to a Liebig condenser in the presence of Al filings, yield 98.8%. The distillate was redistd. and the fraction b. 98-102° collected. The d. of this fraction was 0.9444, index of refraction 1.4172, b. 100.3°. The monomer was dild. 1:4 with H_2O and heated at 65-75° in the presence of 0.5, 1, 2, 3 or 5% of $(NH_4)_2S_2O_8$. Amts. of 0.5-3.0% of persulfate did not differ in their effect on the rate of polymerization. Adding 5% of the catalyst accelerated the polymerization greatly. With the smaller quantities, the product was a fine white powder; with 5% of persulfate the product was spongy and very hard to dry. The mol. wt. of the product obtained by using 0.5% $(NH_4)_2S_2O_8$ was 345,100; by using 3% of $(NH_4)_2S_2O_8$ the mol. wt. was 99,300. Increasing the ratio of monomer to H_2O did not affect the results significantly. Dibutyl phthalate lowered the softening point and also the mol. wt.

M. Hosch

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION





PANAYOTOV, I. I. Cand. Tech. Sci.

Dissertation: "[illegible]"

Chair: [illegible]

30: Vechernyaya Moskva, [illegible]

L 02518-67 EWT(d)/EWT(l)/EWT(m)/EWP(w)/EWP(v)/T/EWP(t)/ETI/EWP(k)/EWP(h)/EWP(l)
ACC NR: AP6023005 SOURCE CODE: UR/0185/66/011/004/0455/0457
IJP(c) JD/WW/JG/AT/JH
AUTHOR: Dutchak, Ya. Y.; Panasyuk, P. V.; Stets'kiv, O. P.

ORG: Lvov State University im. I. Franko (L'vivs'kyy derzhuniversytet)

TITLE: Heat and thermoelectric properties of liquid alloys in the tin-lead system

SOURCE: Ukrayins'kyy fizichnyy zhurnal, v. 11, no. 4, 1966, 455-457

TOPIC TAGS: alloy system, heat conductivity, pyrometer, thermoelectromotive force, lead containing alloy, tin containing alloy

ABSTRACT: The authors study thermal and thermoelectric properties of alloys in the Pb-Sn system with the following concentrations of Sn (wt.%): 0, 5, 10, 20, 40, 61.9, 80, 96, 98 and 100. Heat conductivity measurements were taken by the heat wave method. The FPK-59 pyrometer was used and the specimens to be tested were placed in cylindrical thin-walled crucibles made from stainless steel. Each crucible was placed in a furnace with two heating units surrounding the specimen coaxially. The chromel-alumel thermocouples were fastened to the interior of the specimen, one at the center, and the other at a given distance from the center. Periodic disconnection of the innermost heating element produced radial heat waves. Fluctuation amplitude did not exceed 1°C. Expressions are given for calculating the heat conductivity coefficients. The results show that these coefficients decrease as temperature is increased. The thermoelectric

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L 11297-63 EWP(q)/EWT(m)/BDS AFFTC/ASD JD/HW-2/JG

ACCESSION NR: AP3000108 S/0126/63/015/004/0622/0624

AUTHOR: Dutchak, Ya. I.; Panasyuk, P. V.

TITLE: Viscosity and electrical conductivity of Bi-Sb alloys in liquid state

SOURCE: Fizika metallov i metallovedeniye, vol. 15, no. 4, 1963, 622-624

TOPIC TAGS: Bi-Sb alloy, viscosity, electrical conductivity

ABSTRACT: Physical properties of liquid Bi-Sb alloys were measured, and an attempt was made to determine, on the basis of the measurements, the most probable nature of the short-range order in the liquids. The Sb concentration in the samples started with 10% and was increased by 10% to 90%. Samples weighing 12 g were placed in vacuum-sealed quartz ampules, and their viscosities and electrical conductivities were measured with a device similar to that of V. M. Glazov. The kinematic viscosity of the liquid alloys was calculated according to the Ye. G. Shvidkovskiy formula. The electrical conductivity was measured by the relative method, with liquid lead and tin serving as standards. The increase in the kinematic viscosity with the increase in temperature followed the exponential law. The electrical conductivity isotherms were in liquid alloys similar to those of solid solutions, and atomic correlations in the two states of alloys were alike. The authors conclude that the nature of the short-range order does not change in liquid alloys.

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Association: L'vov State University

L 8414-65 EPA(s)-2/EWI(m)/EPF(n)-2/EWP(q)/EWP(b) Pt-10/Pu-4 IJP(c)/AFETR/
ASD(a)-5/AEDC(a)/SSD/AFWL/RAEM(t) JD/WM/JG/

ACCESSION NR: AP4048685 S/0126/64/018/001/0155/0156

AUTHOR: Dutchak, Ya. I.; Panasyuk, P. V.

TITLE: Study of the viscosity and electrical conductivity of an eutectic antimony-copper alloy

SOURCE: Fizika metallov i metallovedeniye, v. 18, no. 1, 1964, 155-156

TOPIC TAGS: eutectic alloy, copper, liquid state, viscosity, electric conductivity, antimony, antimony base alloy

Abstract: Results are given for research on the viscosity and electrical conductivity of copper-antimony alloys in the liquid state. The viscosity was measured by the torsional vibration method, and the electric conductivity -- by the rotating magnetic field method. The alloys used in the research had an antimony content of 60, 70, 76, 80 and 90% by weight. The eutectic alloy corresponds to an antimony concentration of 76.5% by weight. This is a complex type eutectic ($Sb + Cu_2Sb$). A sharply expressed maximum

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L 8414-65
ACCESSION NR: AP4048685

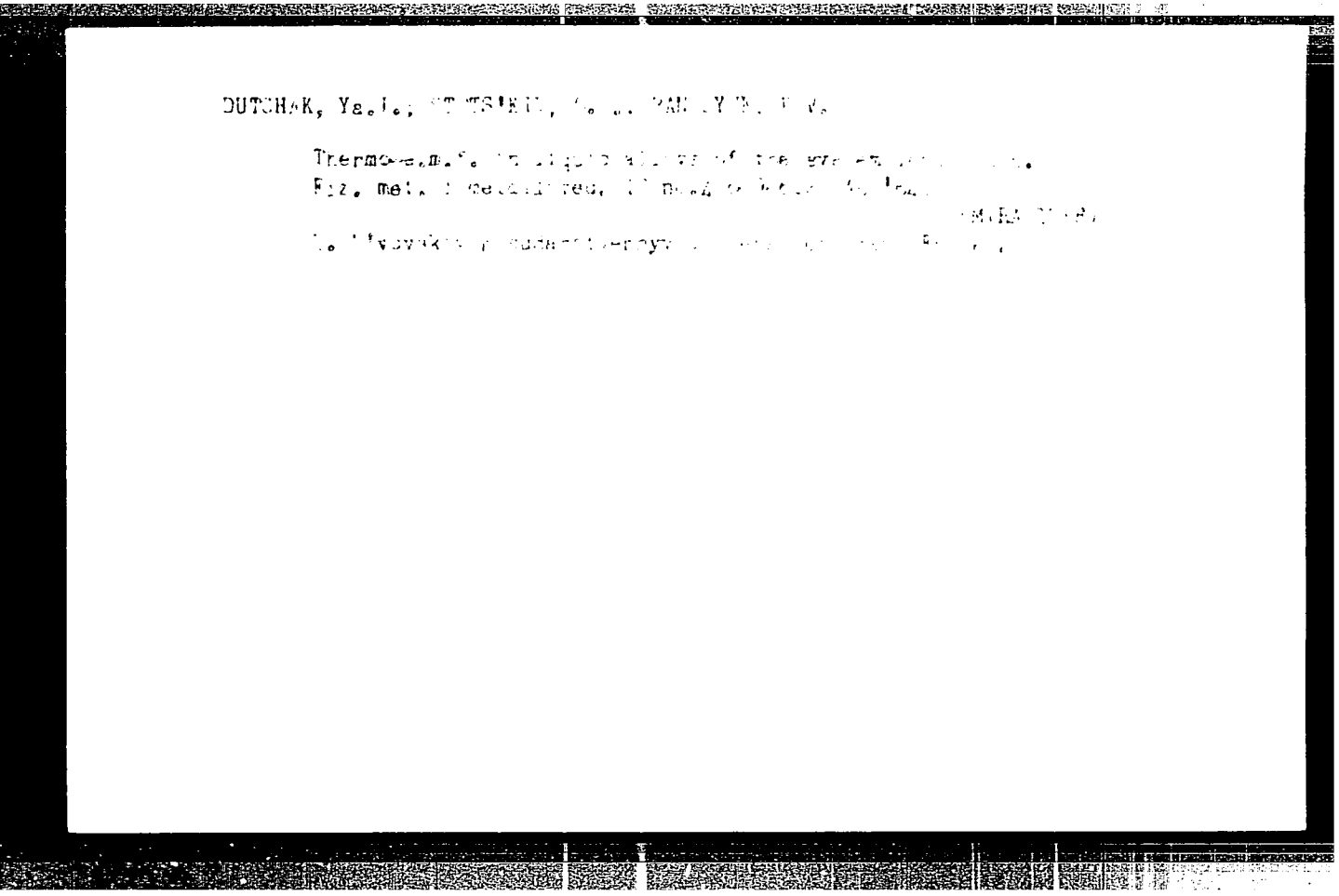
in the electric conductivity is observed in the eutectic concentration region. The maximum is somewhat reduced by an increase in temperature. It is concluded that the eutectic structure of this alloy is preserved in the liquid state. A further increase in the temperature leads to a breakdown in the eutectic property.

ASSOCIATION: L'vovskiy gosuniversitet im. Iv. Franko (Lvov State University)

SUBMITTED: 21Sep63 ENCL: 00 SUB CODE: MM, EM

NO REF SOV: 004 OTHER: 000 JPRS

Card 2/2



SHARBABCHEV, S.; SHAL'NOV, A., kand.tekhn.nauk; PANASYUK, T., inzh.

Equipment for taking up pavement. Stroi. truboprov. 7 no.10:22-23 O '62. (MIRA 15:11)

1. Zamestitel' upravlyayushchego trestom Inzhstroy, Tbilisi (for Sharbabchev).
(Road machinery) (Gas distribution)

PANASYUK, T.A., inzh.

Procedure for putting individual gas units into operation. Stroi. truboprov. 7 no.11:27 N '62. (MIRA 15:12)
(Liquified petroleum gas)

PANASYUK, T.D.

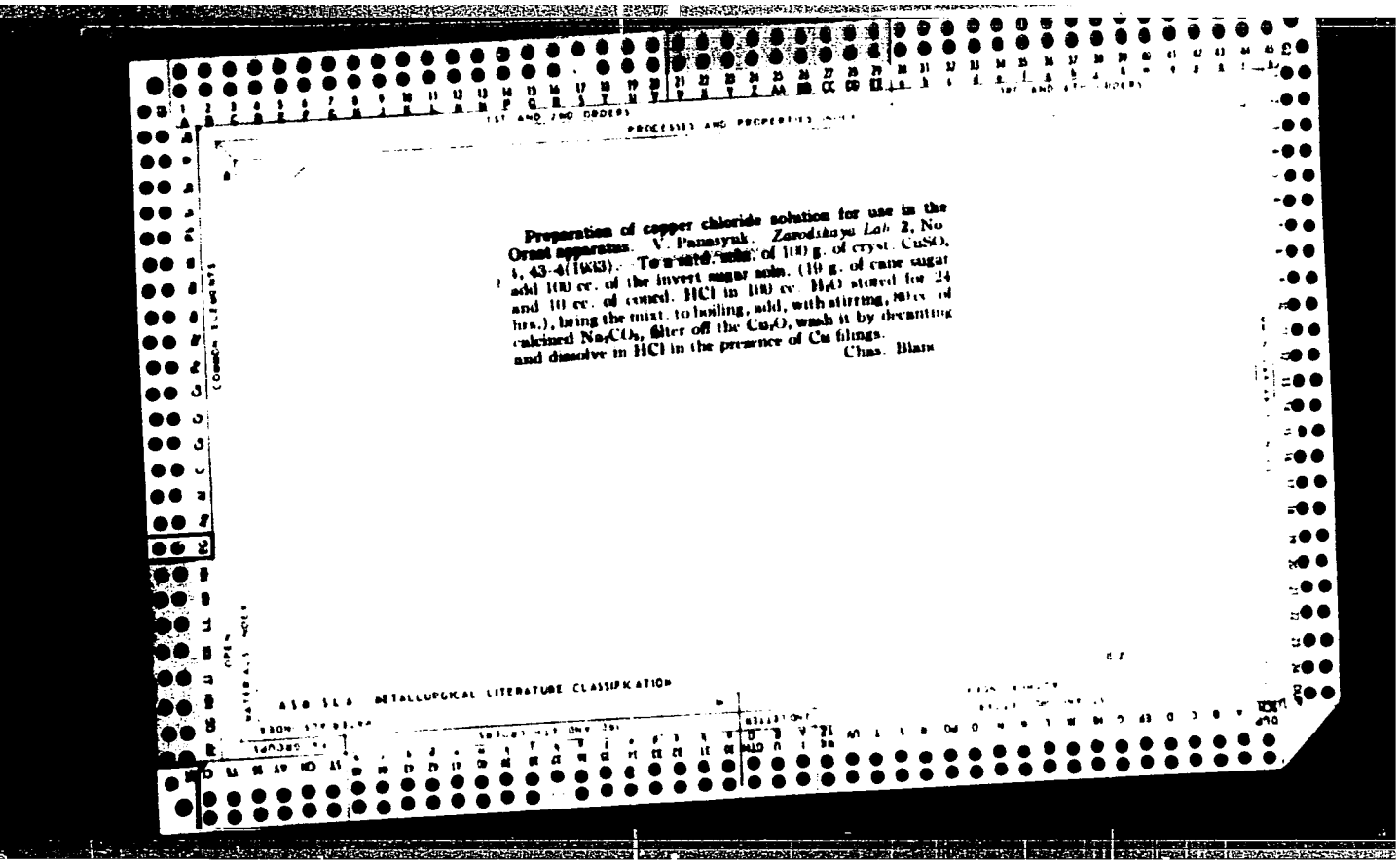
PANASYUK, V.A., insh.; PUDOVKIN, M.P., tekhnik

Redesigning the automatic protection system of high-pressure heaters. Energetik 8 no.11:24 N '60. (MIRA 13:12)
(Boilers--Air preheating)
(Automatic control)

PANASYUK, V.A., inzh.; PUDOVKIN, M.P., inzh.

Redesigning of the automatic control systems of high-pressure PVSS-200 and PVSS-350 heaters. Elek. sta. 31 no.9:75-76 S '60. (MIRA 14:10)

(Boilers)



Preparation of copper chloride solution for use in the Orsat apparatus. V. Panasyuk. *Zavodskaya Lab.* 2, No. 4, 43-4 (1933). To a satd. soln. of 100 g. of cryst. $CuSO_4$, add 100 cc. of the invert sugar soln. (10 g. of cane sugar and 10 cc. of concd. HCl in 100 cc. H_2O stored for 24 hrs.), bring the mixt. to boiling, add, with stirring, 80 cc. of calcined Na_2CO_3, filter off the Cu_2O, wash it by decanting and dissolve in HCl in the presence of Cu filings.
Chas. Blanc

PANASYUK, V. D. Cand Chem Sci -- (diss) "Study of reactions of the isotopic exchange of sulfate ions in aqueous solutions of sulfatoammoniates and sulfato-aquaammoniates of cobalt." Kiev, 1957. 16 pp (Kiev State Univ im T. G. Shevchenko), 100 copies (KL, 4-58, 81)

Pavlyuk, V.D.

Synthesis and determination of some of the physico

of I with benzidine [illegible]. The reaction

J. Kovtar Leach

Panasyuk, V.D.

PIALKOV, Ya.A.; PANASYUK, V.D.

Studying certain physicochemical properties of aqueous solutions of sulfatohydrotetramminecobaltibisulfate. Zhur.neorg.khim. 2 no.7:1497-1504 Jl '57. (MIRA 10:11)

1. Kiyevskiy gosudarstvennyy universitet im. T.G.Shevchenko, Kafedra neorganicheskoy khimii.
(Cobalt sulfates)

AUTHOR FIALKOV, Ya.A., PANASYUK, V.D. 20-1-34/64

TITLE The Sulphate- Ion Exchange in Aqueous Solutions of Acid -Ammonia Compounds of Trivalent Cobalt.
(Obmen sulfat-ionov v vodnykh rastvorakh atsidoammiakatov trekhvalentnogo kobal'ta - Russian)

PERIODICAL Doklady Akademii Nauk SSSR, 1957, Vol 114, Nr 1, pp 124-127(U.S.S.R.)

ABSTRACT The investigation of the kinetics of the isotope exchange facilitated research work concerning properties, structure, and complex composition. Considerable interest was aroused in this respect by the systematical investigations carried out by A.A.Grinbergs and his collaborators. The present paper deals mainly with the results obtained by the authors, viz.the isotope exchange ions - SO_4^{2-} .
1.) The exchange of ions SO_4^{2-} in aqueous solutions of sulphato-pentamine-cobalt- bisulphate. On the occasion of the investigation of the kinetics of the isotope exchange of ions SO_4^{2-} S 3,5 was used (as sodium sulphate).
2.) The exchange of the ions SO in aqueous solutions of sulphate-aqua-tetramine-cobalti-bisulphate. Here the dependence of the velocity of the isotope exchange of the ions SO_4^{2-} on the time, temperature, and the concentration of complex and sulphate ions in the solution was determined. The results obtained by the experiment give rise to the assumption that the first stage of the aforementioned isotope exchange of the ions SO_4^{2-} in the above solutions is the aquation of the complexion (forming the deaquaform).
(4 diagrams and 5 refererces).

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The Sulphate- Ion Exchange in Aqueous Solutions of Acid -Ammonia Compounds of Trivalent Cobalt. 20-1-34/64

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